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210 SYSTEM LISTS

1.0 Common Facility and Programmatic Systems 2
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RECORD OF REVISIONS

Rev	Date	Description	POC	OIC
0	9/26/01	Initial issue.	Tobin H. Oruch, *FWO-SEM*	Mitch S. Harris, *FWO-SEM*
1	2/9/04	Extended to new systems, changed "facility generic" list title to facility and program, changed FMS to BAS, added FCS.	Tobin H. Oruch, *FWO-DO*	Gurinder Grewal, *FWO-DO*

1.0 COMMON FACILITY AND PROGRAMMATIC SYSTEMS

1. The system titles and acronyms in this subsection shall be used for all new building and system design/labeling, and also adopted whenever modifying over 70% of an existing system's components.[1]
    - Table 210-1 contains approved systems and acronyms sorted by system
    - Table 210-2 is similar to Table 210-1 but sorted by acronym
    - Table 210-3 provides additional detail for selecting and defining systems and subsystems.
2. Requests for addition to or modification of this listing shall be directed to the ESM Standards Manager (Chapter 1 POC), M/S M702 (or use website comment link).

Guidance:

1. *Use of this section is also encouraged for smaller, existing-facility projects and labeling/documentation upgrade efforts, since adoption of standard nomenclature ensures gradual progression toward consistently identified systems and components on labels, drawings, procedures, databases, and system design descriptions; this facilitates operations and maintenance.*
2. *The acronyms in this section are the OPsystem part of the component nomenclature process described by Chapter 1, Section 230. Optional subsystem designation is further described there.*
3. *For information on system boundary setting, see Chapter 1 Section 220.*
4. *Each system should receive its own identifier; there is no miscellaneous category. Facility-specific and programmatic system/acronyms maybe be tabulated in the future.*
5. *In Table 210-3, old terms are provided to assist with search and selection. UNIFORMAT II system* design*ators from ASTM E 1557 are noted to assist with ESM section numbering, R.S. Means cost estimating tools, pre-conceptual through preliminary design document organization, etc*

Endnotes

[1] Fifty percent is the accepted threshold for system upgrade to current standards when modifying it; this has a basis in safety and cost effectiveness. Component identification relates to safety and cost effectiveness, though arguably less so; thus 70 percent was chosen.

Table 210-1
Systems and Acronyms -- Sorted by System Title

Acronym	System Title (sorted by)
AS	Air Sampling
AR	Argon Gas
BA	Breathing Air
BLDG	Building
BAS	Building Automation
CP	Cathodic Protection
CS	Chemical Supply
CW	Chilled Water
CDIN	Classified Distributed Information Network
CA	Compressed Air
CON	Condensate
HC	Cranes & Hoists
DIW	Deionized Water
ED	Electrical Distribution
EP	Electrical Power
ET	Electrical Transmission
ELV	Elevators and Lifts
ENCL	Enclosures
DG	Engine Generator
FCS	Facility Control
FP	Fire Protection
FO	Fuel Oil
HVAC	Heating Ventilation & Air Conditioning
HW	Heating Water
HE	Helium Gas
H2	Hydrogen Gas
IA	Instrument Air
IRG	Irrigation
LTG	Lighting
LP	Lightning Protection
LN	Liquid Nitrogen
MBLEQ	Mobile Equipment
NG	Natural Gas
N2	Nitrogen
NPW	Non-Potable Water
NMCA	Nuclear Materials Control and Accountability
O2	Oxygen
OM	Oxygen Monitoring
PCD	Personnel Contamination Detectors
PW	Potable Water
PCW	Process Cooling Water
PLW	Process Liquid Waste
PA	Public Address
RM	Radiation Monitoring
RLW	Radioactive Liquid Waste
RFN	Refrigeration
RG	Roads and Grounds
SS	Sanitary Sewer
SW	Sanitary Waste
SEC	Security
SB	Stationary Battery
STM	Steam
STS	Storm Sewer
STW	Storm Water
SCADA	Supervisory Control and Data Acquisition
TEL	Telecommunications
TW	Tower Water
TG	Turbine Generator
UPS	Uninterruptible Power Supply
VAC	Vacuum

Table 210-2
Acronyms and Systems -- Sorted by Acronym

Acronym (sort)	System Title
AR	Argon Gas
AS	Air Sampling
BA	Breathing Air
BAS	Building Automation
BLDG	Building
CA	Compressed Air
CDIN	Classified Distributed Information Network
CON	Condensate
CP	Cathodic Protection
CS	Chemical Supply
CW	Chilled Water
DG	Engine Generator
DIW	Deionized Water
ED	Electrical Distribution
ELV	Elevators and Lifts
ENCL	Enclosures
EP	Electrical Power
ET	Electrical Transmission
FCS	Facility Control
FO	Fuel Oil
FP	Fire Protection
H2	Hydrogen Gas
HC	Cranes & Hoists
HE	Helium Gas
HVAC	Heating Ventilation & Air Conditioning
HW	Heating Water
IA	Instrument Air
IRG	Irrigation
LN	Liquid Nitrogen
LP	Lightning Protection
LTG	Lighting
MBLEQ	Mobile Equipment
N2	Nitrogen
NG	Natural Gas
NMCA	Nuclear Materials Control and Accountability
NPW	Non-Potable Water
O2	Oxygen
OM	Oxygen Monitoring
PA	Public Address
PCD	Personnel Contamination Detectors
PCW	Process Cooling Water
PLW	Process Liquid Waste
PW	Potable Water
RFN	Refrigeration
RG	Roads and Grounds
RLW	Radioactive Liquid Waste
RM	Radiation Monitoring
SB	Stationary Battery
SCADA	Supervisory Control and Data Acquisition
SEC	Security
SS	Sanitary Sewer
STM	Steam
STS	Storm Sewer
STW	Storm Water
SW	Sanitary Waste
TEL	Telecommunications
TG	Turbine Generator
TW	Tower Water
UPS	Uninterruptible Power Supply
VAC	Vacuum

Table 210-3
System Detail -- Sorted by System Title

System Title (sorted by)	Acro-nym	Subsystem and Drawing Acronyms	Old LANL Terms (Reference Only)	Typical System Components	Functional Description	Uni-format
Air Sampling	AS		Stack Monitoring-STKM, Stack Discharge Monitoring-SDM	Ionization chamber, germanium detector, charcoal filter, paper filter, vacuum pumps	This system monitors real-time emissions of gases, vapors and particulates, including radionuclides, from the facility.	F103002 F105001 F105099
Argon Gas	AR			Piping, valves, storage bottles	This system provides argon gas to labs and process equipment throughout the facility.	D209001 F104005
Breathing Air	BA		Self-Contained Breathing Apparatus-SCBA	Piping, storage bottles, breathing air stations, distribution manifolds, pressure-demand regulators, full-face respirators, oil-free compressor, valves, hoses, instrumentation, SCBAs.	This system provides respiratory protection and air quality to workers in accordance with ANSI Z88.2. This may be accomplished by self-contained breathing air apparatus or a pressurized mobile or centralized distribution system.	D209099 E102007
Building	BLDG		Building Structure, Building-BG, Building Structure-BGS, SH, shielding, confinement	Structural members, interior and exterior walls (incl. fire barriers), formed or pre-stressed concrete, masonry, structural steel, doors (fire, security, etc.), windows, roofs.	The building provides protection to personnel and equipment by providing fire barriers to separate the facility into fire areas and shelter from the environment for equipment and personnel. For nuclear facilities, the building can reduce doses by providing a confinement and/or shielding barrier.	Major Group Element B, and also A and C
Building Automation	BAS		Facility Management System-FMS, Alarm Monitoring-AM, Building Management – BMS, Distributed Control – DCS, Direct Digital - DCC	Sensors, including differential pressure, temperature, loss of power, switch positions, relay contacts, flow, etc., microprocessor, control console, CRT, alarms	This system provides for online continuous monitoring and control of primarily commercial-type HVAC equipment and key parameters. It is usually applied to one facility and performs both discrete and continuously variable functions. Also see Facility Control.	D3060

System Title (sorted by)	Acro-nym	Subsystem and Drawing Acronyms	Old LANL Terms (Reference Only)	Typical System Components	Functional Description	Uni-format
Cathodic Protection	CP		CATHOD	Cathodes, well, cable, transformer-rectifier (TR) sets, monitoring stations	This system protects underground piping and equipment from corrosion by applying voltage to suppress electrochemical attack.	G409001
Chemical Supply	CS			Tanks, hoppers, feed piping, pumps, metering, controls	This system is typically used to deliver water treatment chemicals to various water systems.	G301006
Chilled Water	CW	Supply – CWS Return -- CWR	Central Circulating Chilled Water, Chilled Water-CH	Chillers, piping, valves, heat exchangers, evaporative heat exchangers, pumps, instrumentation	This system provides chilled water to facility and process equipment for heat removal. (Tower Water and Refrigeration are other systems that may be related).	D3030 D304005 G305001
Classified Distributed Information Network	CDIN			Cable, raceway, switchboards, panels, relays	This system provides for transmission of classified computer-based information over copper cable and fiber optic lines within the facility and between the facility and Building TA-3-1498, the central electronic switching point for Computing, Communications, and Networking Div (CCN).	D5030
Compressed Air	CA		Plant air	Compressors, valves, piping, instrumentation, air dryers, controls	This system supplies air for motive power source for tools and equipment. Also see Instrument Air and Breathing Air.	D209001
Condensate	CON	High Pr – CONHP Low Pr – CONLP Pumped – CONPMP		Traps, piping, pumps	This system removes liquid from the steam system and transports it to a drain or boiler for reheating. High Pressure is > 15 psig.	D209006 D302002
Cranes & Hoists	HC		Building Cranes-BGC, Material Handling Systems-MHS, Overhead Cranes-OVC	Hoists, winches, motors, steel structures, hooks, cable, chains, controllers monorails, bridge rails, jib cranes	This system consists of various cranes located throughout the facility	D109003
Deionized Water	DIW	Drain – DIWD Supply – DIWS Return – DIWR	Deionized Water-DW, Demineralized Water-DIWTR	Piping, valves, filters, instrumentation, storage vessels.	This system provides de-ionized water for labs in the facility (generally at 18 megohms resistivity or equivalent microsiemens conductivity).	D209006

System Title (sorted by)	Acro-nym	Subsystem and Drawing Acronyms	Old LANL Terms (Reference Only)	Typical System Components	Functional Description	Uni-format
Electrical Distribution	ED		13.8kV Power Distribution Medium Voltage MV, ED13, EDS, 4.16 kV	Switchgear, transformers, substations, switches, electrical ducts, overhead and underground power lines	This system distributes 13.8kV or 4160 V electrical power to various LANL facilities, includes both 115/13.8kV and stepdown (from 13.8 kV) transformers. Typically owned by FWO-UI.	D5010 G40
Electrical Power	EP		Low Voltage – LV	Electrical distribution equipment, MCCs, transformers, switchgear, breakers, cable, raceway, transfer switches, panel boards, instrumentation and control	This system distributes < 600 Vac (e.g., 480Y/277 V and 208Y/120 V) power within a facility.	D501002 D5020 D509001 D509003
Electrical Transmission	ET		115kV Power Distribution High Voltage - HV	Switchgear, transformers, substations, switches, overhead power lines	This system distributes 115 kV electrical power to various facilities.	G40
Elevators and Lifts	ELV		Elevators-EV, Building Elevators-BGE	Lifting cage, doors, hydraulic pump, motor, cable, lifting ram, controls	This system provides fixed-in-place people and equipment movers, can include personnel and freight elevators, escalators, and dumbwaiters.	D1010
Enclosures	ENCL		Gloveboxes, confinement	Gloveboxes, open-port boxes, open-front boxes, slot hoods, fume hoods	This system provides worker protection and confinement of hazardous materials, while permitting manipulation and process work to be performed on these materials. This system includes the handling of nuclear and chemically hazardous substances.	E102007 F101002
Engine Generator	DG		D/G, diesel, generator, emergency, standby, backup power, set	Diesel, gas, natural gas or LP engine, generator, cooling water, instrumentation, starting battery, distribution panel, circuit breakers, ATS	A diesel, gasoline, LP, or natural gas engine driven generator that provides an auxiliary source of 480 Volt electrical power for the Electrical Power System; starts upon loss of normal power. Ref DOE-STD-3003, *Backup Power Sources for DOE Facilities.*	D509002 G409002

System Title (sorted by)	Acro-nym	Subsystem and Drawing Acronyms	Old LANL Terms (Reference Only)	Typical System Components	Functional Description	Uni-format
Facility Control	FCS		Facility Control System-FCS, G2, Alarm Monitoring-AM,	Sensors, including differential pressure, temperature, loss of power, switch positions, relay contacts, flow, etc., microprocessor, control console, CRT, alarms	This system provides for online continuous monitoring and control of important industrial-type process equipment and key parameters. It is usually applied to one facility and performs both discrete and continuously variable functions. Also see Building Automation.	F1050
Fire Protection	FP	Detection- FPD Suppression - FPS Water -- FPW	Fire Protection-FPS, Fire Alarm-FA, Fire Detection System-FDS, Fire Suppression-FS, Halon, Sprinkler-FSWSS, Fire Suppression Water Supply-FSWSS	Water supply, piping, valves, automatic wet-pipe sprinklers, standpipes, FM200 or CO_2 agents, portable extinguishers, exterior fire hydrants, pressure switches, flow switches, fire alarm initiating and notification devices, cable, control panels	This system generally consists of two subsystems: 1) the Fire Protection Detection subsystem and 2) the Fire Protection Suppression subsystem. The FPD functions to detect a fire and generate signals indicating its presence and location. It also executes commands and alarms as appropriate. The FPS delivers extinguishing agent to sprinkler heads and standpipes to provide fire suppression coverage.	D40 D503007 G301004
Fuel Oil	FO	Supply – FOS Return – FOR Vent -- FOV	FUOIL	Tanks, piping, valves, dispensing equipment	This system stores and dispenses fuel oil to systems upon demand for combustion and heating purposes.	D301001 G3060
Heating Ventilation & Air Conditioning	HVAC		Differential Pressure Monitoring-DPM, Exhaust-, Exhaust Air-EX, Alarm-HA, HVAC Control Air-HCA, HV, Graphite Collection, HEPA Ventilation, Recirculating HVAC, Ventilation	Supply and exhaust ventilation, heating and cooling coils, HEPA filters, ductwork, dampers, motors, fans, and non-centralized simple instrumentation	This system supplies and distributes tempered air within the facility for the general comfort of laboratory and office workers and to support the ongoing research activities. The HVAC System also removes the air from laboratory research processes, machinery operations, and personnel occupancy, and reduces the concentration of radioactive particulate and hazardous materials in occupied spaces.	D30

System Title (sorted by)	Acro-nym	Subsystem and Drawing Acronyms	Old LANL Terms (Reference Only)	Typical System Components	Functional Description	Uni-format
Heating Water	HW	Supply – HWS Return -- HWR	Central Circulating Hot Water, Tempered Water-REPWTR, Hot Heating Water-HWH	Heat exchangers, valves, piping, pumps, expansion tanks, instrumentation	This system provides hot water to the Heating, Ventilation, and Air Conditioning (HVAC) heating booster coils in the HVAC air supply distribution ducts (250 degrees maximum).	D3020 D304004
Helium Gas	HE		Inert gas	Storage bottles, manifolds, regulators, piping, valves	This system provides helium gas to laboratories and process equipment throughout the facility (HE not to be confused with High Explosives).	D209001
Hydrogen Gas	H2			Storage bottles, manifolds, regulators, piping, valves	This system provides hydrogen gas to laboratories and process equipment.	D209001
Instrument Air	IA		Building Component Air-BCA, Process Control Air-PCA	Compressors, valves, piping, instrumentation, air dryers, controls	This system supplies air to the facility at various pressures for HVAC system controls; control air to the steam valves; utility air drops in the equipment rooms, basements and laboratories; process air to process fume hoods, glove boxes, and dry compressed air for ventilation system pneumatic controls, damper actuators, and diesel generator start capabilities.	D209001
Irrigation	IRG			Piping, valves, sprinklers heads, timers	This system provides water for the lawn, flowers, trees and shrubbery outside buildings.	G205007
Lighting	LTG	Exterior – LTGE Interior – LTGI Emergency - LTGEM	Lighting-LG, Electrical Lighting-EL	Lighting fixtures, cable, conduit, panels. LTGEM can include inverters, batteries, battery chargers, emergency exits lights.	This system provides interior and exterior illumination. LTGEM provides illumination for personnel to evacuate the building through normal and emergency exits. Another requirement is to allow identification of all fire alarm pull stations and fire fighting equipment upon loss of the normal lighting served by the building Electrical Power System.	D502002 G4020

System Title (sorted by)	Acro-nym	Subsystem and Drawing Acronyms	Old LANL Terms (Reference Only)	Typical System Components	Functional Description	Uni-format
Lightning Protection	LP		Building Lightning Protection Roof-BGL, Lightning Protection-LP, Lightning Detection	Air terminals, conductors, counterpoise, connectors, supports, grounding cable	This system aids in protecting personnel and equipment against excessive voltages caused by lightning flashes. The lightning protection system accomplishes this task by creating an equipotential mass with as low an impedence to natural earth ground as possible (ref NFPA 780).	D409099 D509004
Liquid Nitrogen	LN		Cryogenics	Tanks, dewars, piping, manifolds, valves	This system provides liquid nitrogen for use in process systems and labs. Can feed Nitrogen.	D209001 F104005
Mobile Equipment	MBLEQ			Forklifts, manlifts, carts, hand trucks, robots, other specialized vehicles	This system provides personnel and material handling functions not served by either Elevators and Lifts or Cranes and Hoists.	D109008
Natural Gas	NG	High Pr – G Med Pr – GM Low Pr - GL	Natural Gas Utility Distribution, Site Natural Gas	Piping, pressure regulators, relief and control valves	This system provides natural gas for use in facility heating and process equipment such as furnaces. High Pr > 5 psig; Low Pr < 14” W.C.	D301002
Nitrogen	N2			Storage bottles, piping, manifolds, valves	This system provides gaseous nitrogen at various pressures for use in process systems and laboratory use. Sometimes fed by LN.	D209001 F104005
Non-Potable Water	NPW	Cold – NPWC Hot – NPWH Hot Recirc – NPWHR Make-up -- NPWMU	Industrial Water-IW, Non-potable Water-NW, Non-Potable Cold Water-NPCW, Non-Potable Hot Water-NPHW	Pumps, piping, valves, instrumentation	This system provides non-potable water throughout the facility for various equipment and system use.	D209099 G301002
Nuclear Materials Control and Accountability	NMCA		Safeguards, MC&A	Counters, shufflers, detectors, mass spectrometers, instruments, CPUs, alarms	This system provides nuclear material measurement and/or detection functions for facilities containing such material.	D503008 F105099
Oxygen	O2			Bottles, regulators, piping, relief valves, flame arrestors	This system provides pure oxygen to processes requiring it.	D209001
Oxygen Monitoring	OM		OXM	Sensors, cable, control panel, annunciators	This system monitors the oxygen content of the air in refrigerator and compressor buildings and alarms if the oxygen level falls below 19.5%. Can also be used with inert gloveboxes to detect leakage.	D306004 D306099 D5030 E102007 F105099

System Title (sorted by)	Acro-nym	Subsystem and Drawing Acronyms	Old LANL Terms (Reference Only)	Typical System Components	Functional Description	Uni-format
Personnel Contamination Detectors	PCD			Handheld and fixed monitors and related instrumentation	This system protects and notifies workers of radiological contamination acquired in Radiological Controlled Areas.	F103002
Potable Water	PW	Cold – PWC Hot – PWH Hot Recirc - PWHR	Domestic water, Potable Water-PO, Potable Cold Water-POC, Water Utilities Distribution	Piping, backflow preventors, showers, valves, lavatories, eyewashes, and drinking fountains. PWH includes water heaters and downstream piping; PWHR includes circulating pumps.	This system provides potable water to and the fixtures for drinking fountains, bathroom sinks and showers, and emergency eye wash and safety showers, and decontamination showers. The system includes the transmission lines and two distribution subsystems supplying water to LANL facilities.	D2010 D202001 D202002 E102007 G301001
Process Cooling Water	PCW	Supply-PCWS Return– PCWR	Circulating Cooling Water-CCW, Process Water-PW, Process Cooling Water-PW	Piping, valves, heat exchangers, pumps, instrumentation	Process Cooling Water may be a closed loop or a once-through cooling system. It is the primary cooling loop in contact with process equipment, removing heat to an intermediate cooling system or to the environment as a once through system. Not a redundant term to Chilled Water.	D303001 G3050
Process Liquid Waste	PLW	Hazardous – PLWH Non-Haz – PLWNH	Industrial Liquid Waste ILW, IWS, Collection-CO, Manholes-MH	Piping, drain fixtures, pumps, valves, storage tanks, instrumentation	This system collects and removes chemical and inorganic waste solutions.	D209002
Public Address	PA		Public Address and Intercom-PAI, Life Safety-SA	Cable, speakers, headsets, paging stations, batteries, microphone preamplifier, line driver, zone key card, alarm generator, power amplifier, control panel, microphones, power supply	This system sounds an audible emergency evacuation alarm during all accidents involving potential nuclear criticality events, and broadcasts emergency announcements for zone evacuation. Normal operation may include site announcements and system testing notifications.	D503001
Radiation Monitoring	RM		Radiation Monitoring-RD, Air Sampling-AS, Air Sample Vacuum, Fixed Head Air Sampling, Continuous Air Monitoring-CAM, Tritium Monitoring-T2	Continuous air monitors, fixed air samplers, vacuum pumps, piping, instrumentation	This system provides real time monitoring of work spaces for airborne alpha particle-emitting radioactive contamination, real-time monitoring of area, equipment, and personnel for direct external gamma radiation exposure.	F103002

System Title (sorted by)	Acro-nym	Subsystem and Drawing Acronyms	Old LANL Terms (Reference Only)	Typical System Components	Functional Description	Uni-format
Radioactive Liquid Waste	RLW	Collection "System" – RLWCS Vent -- RLWV	Acid Drains-ACID, Collection-CO, Manholes-MH	Piping, drain fixtures, pumps, valves, storage tanks, instrumentation	This system collects and processes low-level radioactive waste solutions.	D209002
Refrigeration	RFN	Hot Discg – RFND Liquid – RFNL Pr Relief – RFNR Suction – RFNS		Chillers, piping, valves, heat exchangers, evaporative heat exchangers, pumps, instrumentation	Provides mechanical cooling for HVAC or Chilled Water systems. Its components can also be bounded within those systems as an alternative to use of this system.	D303002
Roads and Grounds	RG			Roads, parking lots, driveways, traffic control devices, grounds	Provides vehicle and pedestrian surfaces and controls, erosion control, and aesthetic functions.	G20
Sanitary Sewer	SS		Site Sanitary Sewer Collection	Piping, manholes, lift stations	This system is outside buildings and collects and delivers the sanitary sewer effluent to the wastewater treatment plant at TA-46.	G3020
Sanitary Waste	SW	Treated Effluent – SWTE Vent -- SWV	Sanitary Waste-SW, Sanitary Waste-SAN, Waste Water-WSTWTR Building Drain BD	Piping, sinks, floor drain fixtures, sump pumps	This system is sanitary plumbing inside building that discharges into the Sanitary Sewer system. Once treated at TA-46 it is considered treated effluent.	D2030
Security	SEC		Security-SE, Intrusion Alarm-IA, Personnel Access Security System-PASS, Security & Alarms-SEC BRASS, ARGUS	Guard stations, fences, locking devices, radio communications, microwave detection systems, metal detectors, tamper indicating switches, security lighting, BRASS (Basic Response Alarm Security System)	The primary objective of the Security System is to protect special nuclear material (SNM) from theft or diversion and to protect material and facilities from sabotage. The Security System is also designed to provide protection of and deny access to classified material. The BRASS portion of the system also handles fire alarm signals. Related system at NMCA.	D503008 F103003 F1050

System Title (sorted by)	Acro-nym	Subsystem and Drawing Acronyms	Old LANL Terms (Reference Only)	Typical System Components	Functional Description	Uni-format
Stationary Battery	SB		Emergency, standby, backup power - BP	Two or more cells connected together electrically in series, parallel, or combination, plus switchgear and distribution equipment.	A direct current (dc) standby power system that will supply power to the load upon loss of ac power to the charger, failure of the charger, or when the load exceeds the charger output. Commonly used in industrial and substation control and communications. See UPS for ac.	D509002
Steam	STM	Hi Pr – STMHP Lo Pr -- STMLP	Steam Supply Steam Distribution	Piping, valves, pressure vessels, instrumentation	This system provides steam to various systems and processes. High Pressure is > 15 psig.	D304003
Storm Sewer	STS		Drainage, WSTWTR - Waste Water	Piping, manholes, french drains	An underground sewer used for conveying primarily rainwater and surface water.	G3030
Storm Water	STW		Roof Drains-BGR, Building Drain BD	Gutters and downspouts, and roof drains and piping	This system provides roof drainage for rain and snow, and discharges to the Storm Sewer system.	D2040
Supervisory Control and Data Acquisition	SCADA		Equipment Surveillance-ES, Equipment Surveillance System-ESS, MIZER, alarm monitoring	PLC, microprocessor, CRT, instrumentation cable, equipment sensors, computerized phone dialer	This system provides remote equipment monitoring and on/off control functions. It may also provide off-site notification to facility operations personnel for abnormal equipment and system conditions. It is usually associated with multiple facilities	F1050
Telecommuni-cations	TEL		Telephone & Data Communications-COM	Cable, raceway, switchboards, panels, relays	This system provides for transmission of telephonic information and non-classified computer-based information over copper cable and fiber optic lines within the facility and to TA-3-1498, the central electronic switching point for Computing, Communications, and Networking Div (CCN). See CDIN for classified telecom.	D5030
Tower Water	TW	Supply – TWS Return – TWR Drain - TWD	Cooling Water-CT	Pumps, piping, valves, fans, cooling tower, basin, structure, instrumentation	This system removes heat from condensers and rejects it to the atmosphere by evaporative cooling via a cooling tower.	G305004

System Title (sorted by)	Acro-nym	Subsystem and Drawing Acronyms	Old LANL Terms (Reference Only)	Typical System Components	Functional Description	Uni-format
Turbine Generator	TG		Turbine Generator	Steam or gas driven turbine, generator	A steam- or gas-turbine-driven generator that provides an auxiliary source of 480 Volt electrical power for the Electrical Power System; typically starts only upon loss of normal power.	D509002
Uninterruptible Power Supply	UPS		Emergency, standby, backup power BP	UPS designs include various combinations of rectifier/charger, battery transfer and bypass switches, and an inverter. (Ref DOE-STD-3003, *Backup Power Sources for DOE Facilities*).	UPSs are used to supply an uninterrupted source of power to important instrumentation and control systems for loss-of-normal-power conditions. They also provide continuous, quality power for systems sensitive to disturbances occurring in an electrical power distribution system caused by switching, faults, or power transfer. A UPS solely dedicated to supporting another system or subsystem (e.g., Emergency Lighting) shall be part of that system. Also see Stationary Battery System.	D509002
Vacuum	VAC	Vacuum Pump Discharge - VACPD	Vacuum-VA, Laboratory Vac, Dry Vac, Vac Cleaning-VC	Vacuum pumps, piping valves, instrumentation	This system provides utility vacuum service for programmatic processes and activities; may provide vacuum for Radiation Monitoring System.	E109001